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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/147,320	02/02/1999	MATS LEIJON	9847-0004-6X	1544
22850	7590	07/20/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, CHAUN	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 07/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/147,320		LEIJON ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Chau N. Nguyen		2831	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 19, 22-25, 31, 32, and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyba et al. (3,914,532) in view of Hvizd, Jr. et al. (4,361,723).

Dyba et al. discloses an insulated conductor for high-voltage winding in an electric machine, comprising at least one uninsulated strand (17) and a plurality of strands (18) each being insulated from one another, an inner conductive layer (16) that surrounds and contacts the plurality of strands and the at least one uninsulated strand, an insulating layer (15) that surrounds the inner conductive layer, and an outer conductive layer (13) that surrounds the insulating layer.

Dyba et al. does not disclose the outer conductive layer having a resistivity in a range of 10 to 500 ohm\*cm (claims 19, 36, 37) or of 50 to 100 ohm\*cm (claim 22). Hvizd, Jr. et al. discloses an invention relating to an insulated high-voltage cables. Hvizd, Jr. et al. discloses that it is well-known in the high voltage cable art that semi-conductive material has resistivities in the range of 1 to 1,000,000 ohm\*cm (col. 2, line 65-67). It would have been obvious that depending on the specific use of the resulting wire, one skilled in the art would choose a suitable resistivity for the outer conductive layer of Dyba et al. to meet the specific requirement since a resistivity having ranges of 10 through 500 ohm\*cm or 50 through 100 ohm\*cm is well-known in the cable art for semiconductive material as taught by Hvizd, Jr. et al. Noted that the resistances as recited in claims 23-25 are inherent from the modified outer conductive layer of Dyba et al. since it has the resistivity as claimed in claim 19. Re claims 31 and 32, it has been held that

during the examination, the patentability of a product claim is determined by the novelty and nonobviousness of the claimed product itself without consideration of the process for making it which is recited in the claim. In re Thorpe, 227 USPQ 964. Re claim 35, it would have been obvious to one skilled in the art to use LDPE or HDPE for the insulating layer of Dyba et al. since these materials are well-known in the art for being used as insulating material.

4. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyba et al. in view of Hvizd, Jr. et al. as applied to the claims above, and further in view of Elton et al. (5,066,881).

Claims 20 and 21 additionally recite the outer conductive layer being grounded at at least two different points. Elton et al. discloses an insulated wire (Fig. 7) wherein the outer conductive layer (110) is grounded (at 112). It would have been obvious to one skilled in the art to ground the outer conductive layer of Dyba et al. as taught by Elton et al. to establish and maintain the potential of the conductive layer. It would also have been obvious to one skilled in the art to provide another grounding point on the outer conductive layer of Dyba et al. to improve the grounding effect of the outer layer because it has been held that

duplicating an essential working part of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dyba et al. in view of Hvizd, Jr. et al. as applied to the claims above, and further in view of Silver et al.

Claim 26 additionally recites the resistivity of the outer conductive layer being set by a type of the base polymer, a type of the carbon black and a proportion of the carbon black relative to an entire formulation of the outer conductive layer. Silver et al. discloses an insulated wire comprising a conductive layer (3 or 4) being made of a base polymer and a carbon black. Silver et al. discloses the resistivity of the layer being set by a type of the base polymer (col. 4, lines 35-38), a type of the carbon black and a proportion of the carbon black relative to an entire formulation of the layer (col. 1, lines 20-37). It would have been obvious to one skilled in the art to choose suitable types of polymer and carbon black and use an appropriate amount of the carbon black as taught by Silver et al. to meet the specific required resistivity of the Dyba et al. outer conductive layer.

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dyba et al. in view of Hvizd, Jr. et al. as applied to the claims above, and further in view of Robert et al. (5,530,206).

Claim 27 additionally recites the base polymer comprising an ethylene butyl acrylate copolymer. Robert et al. discloses a cable comprising a semiconductive layer having a base polymer being comprised of an ethylene butyl acrylate (col. 3, lines 42-47). It would have been obvious to one skilled in the art to use ethylene butyl acrylate as the base polymer for the outer conductive layer of the modified Dyba et al. wire since ethylene butyl acrylate is a well-known (conventional) polymer being used in semiconductive materials as taught by Robert et al.

7. Claims 28-30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyba et al. in view of Hvizd, Jr. et al. as applied to the claims above, and further in view of Carini et al. (3,876,462).

Claims 28 and 29 additionally recite the outer conductive layer being cross-linked by peroxide. Carini et al. discloses an insulated conductor having an outer conductive layer which is a cross-linked layer. It would have been obvious to one skilled in the art to cross-link the outer conductive layer of Dyba et al. to increase strength in the layer as taught by Carini et al.

Carini et al. also discloses an insulating layer which is crosslinked by peroxide. It would have been obvious to one skilled in the art to use peroxide to crosslink the outer conductive layer of Dyba et al. since peroxide is known material for being used for crosslinking polymer.

Re claims 30 and 33, Carini et al. discloses the insulating layer of the insulated conductor being configured to adhere to the outer conductive layer with a predetermined adhesion strength and being a XLPE. It would have been obvious to one skilled in the art to apply teaching of Carini et al. in the insulated conductor of Dyba et al., by using XLPE for the insulating layer and adhering the insulating layer to the outer conductor such that the insulated conductor is not only being easy to terminate but also has improved electrical properties.

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dyba et al. in view of Hvizd, Jr. et al. as applied to the claims above, and further in view of Breitenbach et al.

Claim 34 additionally recites the insulating layer being made of EPR. Breitenbach et al. discloses a cable comprising an insulating layer (8) being made of EPR. It would have been obvious to one skilled in the art to use EPR for the insulating layer of the modified Dyba et al. insulated conductor since EPR is an



insulating material suitable for being used in high voltage applications as taught by Breitenbach et al.

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claim 19 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 21 of U.S. Patent No. 6,376,775. Although the conflicting claims are not identical, they are not patentably distinct from each other because the current claims are either an obvious broadening of the scope of, or an obvious variant of the patent claim.

11. Claims 19, 22-25, 31 and 32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims

10 and 16 of U.S. Patent No. 6,822,363. Although the conflicting claims are not identical, they are not patentably distinct from each other because the resistance per axial length unit as claimed in claims 23-25 are inherent from the resistivities disclosed in claim 10 of Patent. Also, using an extrusion with a multilayer head to extrude multilayer is known in the art.

12. Claims 19-21 and 35-37 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 6 of U.S.

Patent No. 6,798,107. Although the conflicting claims are not identical, they are not patentably distinct from each other because semiconductive material having resistivities in the range of 10 to 500 ohm\*cm or 50 to 100 ohm\*cm is known in the art. Also, LDPE or HDPE is known insulating material for being used in the cable art.

13. Claim 26 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,798,107 in view of Silver et al.

Silver et al. discloses an insulated wire comprising a conductive layer (3 or 4) being made of a base polymer and a carbon black. Silver et al. discloses the resistivity of the layer being set by a type of the base polymer (col. 4, lines 35-38), a type of the carbon black and a proportion of the carbon black relative to an entire

formulation of the layer (col. 1, lines 20-37). It would have been obvious to one skilled in the art to choose suitable types of polymer and carbon black and use an appropriate amount of the carbon black as taught by Silver et al. to meet the specific required resistivity of the Patent outer conductive layer.

14. Claim 27 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,798,107 in view of Robert et al.

Robert et al. discloses a cable comprising a semiconductive layer having a base polymer being comprised of an ethylene butyl acrylate (col. 3, lines 42-47). It would have been obvious to one skilled in the art to use ethylene butyl acrylate as the base polymer for the outer conductive layer of the Patent since ethylene butyl acrylate is a well-known (conventional) polymer being used in semiconductive materials as taught by Robert et al.

15. Claims 28-30 and 33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,798,107 in view of Carini et al.

Carini et al. discloses an insulated conductor having an outer conductive layer which is a cross-linked layer. It would have been obvious to one skilled in

the art to cross-link the outer conductive layer of the Patent to increase strength in the layer as taught by Carini et al.

Carini et al. also discloses an insulating layer which is crosslinked by peroxide. It would have been obvious to one skilled in the art to use peroxide to crosslink the outer conductive layer of the Patent since peroxide is known material for being used for crosslinking polymer.

Re claims 30 and 33, Carini et al. discloses the insulating layer of the insulated conductor being configured to adhere to the outer conductive layer with a predetermined adhesion strength and being a XLPE. It would have been obvious to one skilled in the art to apply teaching of Carini et al. in the insulated conductor of the Patent, by using XLPE for the insulating layer and adhering the insulating layer to the outer conductor such that the insulated conductor is not only being easy to terminate but also has improved electrical properties.

16. Claim 34 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,798,107 in view of Breitenbach et al.

Breitenbach et al. discloses a cable comprising an insulating layer (8) being made of EPR. It would have been obvious to one skilled in the art to use EPR for the insulating layer of the Patent insulated conductor since EPR is an insulating

material suitable for being used in high voltage applications as taught by Breitenbach et al.

***Response to Arguments***

17. Applicant's arguments with respect to claims 19, 36 and 37 have been considered but are moot in view of the new ground(s) of rejection.

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Art Unit 2831